



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,581	02/18/2004	Liam Seery	8912/2015	2809

29933 7590 08/24/2007  
PALMER & DODGE, LLP  
KATHLEEN M. WILLIAMS  
111 HUNTINGTON AVENUE  
BOSTON, MA 02199

EXAMINER
----------

BORGEEST, CHRISTINA M

ART UNIT	PAPER NUMBER
----------	--------------

1649

MAIL DATE	DELIVERY MODE
-----------	---------------

08/24/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<p align="center"><b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b></p>	Application No. 10/781,581	Applicant(s) SEERY ET AL.	
	Examiner Christina Borgeest	Art Unit 1649	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 10 August 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 4 months from the mailing date of the final rejection.  
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
 (a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);  
 (b) ☐ They raise the issue of new matter (see NOTE below);  
 (c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
 5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
 6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
 7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
 The status of the claim(s) is (or will be) as follows:  
 Claim(s) allowed: \_\_\_\_\_.  
 Claim(s) objected to: \_\_\_\_\_.  
 Claim(s) rejected: 1-3, 13 and 14.  
 Claim(s) withdrawn from consideration: 4-12.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
 12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
 13. ☐ Other: \_\_\_\_\_.

/Elizabeth C. Kemmerer/  
Primary Examiner, Art Unit 1646

Continuation of 3. NOTE: Applicants' have deleted the term "apoptotic" in claim 1, thus broadening the claim, which would require further consideration under 35 USC 112, 1.

Continuation of 11. does NOT place the application in condition for allowance because: Regarding new claims 15-18, the claims recite a preparation, thus have the same problems as those set forth at pages 6-9 in the Office action mailed 10 April 2007. Applicants cite Forman and United States v. Telectronics, Inc. to demonstrate that "the test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation. In the instant case the claims encompass conducting cell based assays in a cell free system. The "signal" encompasses a large number of endpoints that would require undue experimentation to define. Claims reading on significant numbers of inoperative embodiments would render claims non-enabled when the specification does not clearly identify the operative embodiments and undue experimentation is involved in determining those that are operative. Ibid.; In re Cook, 439 F.2d 730, 735, 169 USPQ 298, 302 (CCPA 1971). The Examiner pointed out in the Office action mailed 10 April 2007 that the art is unpredictable and complex concerning ITPKC, as little is known about the catalytic mechanism of ITPKC. Furthermore, the subcellular localization of ITPKC (as well as the A and B isoforms) is important to its function, since the substrate acts in specific locations with the cell (see Examiner's comments at p. 8 of the Final Office action regarding the unpredictability of cell free systems with respect to ITPKC). The Examiner disagrees with Applicants' assertion that subcellular localization is conjectural and insufficient to overcome the presumption of operativeness. The Examiner put forth evidence in the form of scientific articles to illustrate the state of the art and its unpredictability, both of which are factors that must be weighed when considering enablement.

With regard to the rejection of claims 13-14 under 35 102(b), Dewaste et al. teach every element of the invention as claimed. Applicants argue that calmodulin is not a low molecular weight organic molecule. Calmodulin is a 17 kDa protein, which is a low molecular weight protein. A protein is an organic molecule. Furthermore, Applicants' argue that calmodulin does not interact with ITPKC to generate a signal, but rather calmodulin modulates calcium levels via sequestration, which in turn can modulate ITPKC kinase activity levels. This has been fully considered but is not found persuasive because "the presence or absence of a signal" is encompassed by sequestration of calcium because calcium is an important cell signaling molecule and calcium levels in a cells influence cell signaling. Thus the claims are anticipated by Dewaste et al.